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| Appl | ication/ | Control | l No. |
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10/803,333

Examiner

Chuong A. Luu

SHIN ET AL.

Applicant(s)/Patent under Reexamination

Art Unit

2818

✓ Rejected= Allowed

(Through numeral)
Cancelled

Restricted

Non-Elected

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| Cla             | aim      | Date         |                 |          |         |                         | Claim     |          |           | Date |       |          |  |   |  |                    | Cla          | aim          | Date     |          |               |               |          |                 |               |   |              |          |          |              |           |
|-----------------|----------|--------------|-----------------|----------|---------|-------------------------|-----------|----------|-----------|------|-------|----------|--|---|--|--------------------|--------------|--------------|----------|----------|---------------|---------------|----------|-----------------|---------------|---|--------------|----------|----------|--------------|-----------|
|                 |          |              |                 | T        | T       | T                       |           |          |           |      |       | 1        |  |   |  |                    |              |              | П        |          |               |               |          |                 | Т             |   |              |          |          |              | $\Box$    |
| Final           | Original | 2/1/05       |                 |          |         |                         |           |          |           |      | Final | Original |  |   |  |                    |              | $  \  $      |          |          |               | Final         | Original |                 |               |   |              |          |          |              |           |
| 🛅               | Ę        | 2            |                 |          | 1       |                         |           |          |           |      | 🛅     | Ę        |  |   |  |                    |              |              |          |          |               | 這             | Orig     |                 |               |   |              |          |          |              |           |
|                 |          | L            |                 | $\perp$  | $\perp$ | $\perp$                 | L         | Ш        |           |      |       |          |  |   |  |                    |              |              |          |          |               |               | J        |                 |               |   | $\perp$      |          |          |              |           |
|                 | 1        | Ŀ            |                 |          |         |                         |           | $\Box$   |           |      |       |          |  |   | $\Box$   |                    |              |              |          | $\Box$   |               |               |          |                 |               |   |              |          |          | $oxed{oxed}$ |           |
|                 | .2       | <u>  -</u>   | $\sqcup$        |          |         | ↓                       |           | Ш        |           |      |       |          |  |   |  | $\perp$            |              |              |          | _        |               |               |          |                 |               | 4   | ┸            | _        |          | $\perp$      | $\Box$    |
|                 | 3        | <u>  -</u>   | $\sqcup \bot$   | 4        | $\perp$ | 4                       | <u> </u>  | $\perp$  |           |      |       |          | Ш  | _   | _  | _                  |              |              |          |          |               |               |          |                 |               | 1   | _            |          |          | $\perp$      |           |
|                 | 4        | Ŀ            | $\sqcup$        | _        | _       | _                       | ┸         |          |           |      |       |          |  |   | _  | _                  | _            | Ш            |          | _        |               |               |          |                 | $\perp$       | ┸   | ļ            | <u> </u> |          | _            | _         |
|                 | 5        | <u>-</u>     | $\sqcup$        | 4        | 4       | $\bot$                  | 1         | $\sqcup$ |           |      |       |          |  | _   | 4  | 4                  | 1            | 1            |          |          |               |               |          | $\Box$          |               | 4   |              | <u> </u> |          | _            |           |
| <u> </u>        | 6        | -            | $\vdash \vdash$ | $\bot$   | -       | $\bot$                  | -         | $\sqcup$ | _         |      |       |          |  |   | -  | -                  | +            |              | _        | _        |               |               |          | _               |               | $\bot$  |              | _        |          |              |           |
| -               | 7        | -            | $\vdash$        | +        | _       | +                       | _         | $\vdash$ | _         |      |       |          | Н  | -   | _  | +                  | +            | $\vdash$     |          | -        |               |               |          |                 |               | 4   | -            | <u> </u> | _        | _            | _         |
| <u> </u>        | 8        | -            | $\vdash$        | +        | +       | +                       | +         | $\vdash$ | $\dashv$  |      |       |          | $\vdash \vdash$                                  | $\dashv$  | +  | +                  | +            | $\vdash$     |          |          |               |               |          |                 |               | +   | ┿            | <u> </u> |          | $\dashv$     | _         |
| -               | 10       | -            | $\vdash$        | +        | +       | +                       | +         | +        | $\dashv$  |      |       |          | $\vdash$   | $\dashv$  | +  | +-                 | +-           | +            | $\dashv$ | $\dashv$ | ŀ             |               |          | -               | -             | ┿   | -            | -        | $\dashv$ | -            | -         |
| $\vdash$        | 11       | -            | $\vdash$        | +        | ╁       | +                       | ╁         | $\vdash$ | $\dashv$  |      |       |          | $\vdash$   | $\dashv$  | +  |                    | +            | $\vdash$     | -        |          | :::: <br>     | 1             |          | $\vdash \vdash$ |               | +-  | ╁            | $\vdash$ | -+       | -            | $\dashv$  |
| <u> </u>        | 12       | -            | $\vdash$        | +        | +       | +                       | +         | $\dashv$ | $\dashv$  |      |       |          | $\vdash \vdash$                                  | $\dashv$  | +  | +                  | +            | Н            | $\dashv$ | $\dashv$ | ŀ             |               |          | $\vdash$        | +             | +   | +            | $\vdash$ | -+       | $\dashv$     | $\dashv$  |
| <del></del>     | 13       | -            | $\vdash$        | +        | +       | +                       | +         | ++       | $\dashv$  |      |       |          | $\vdash$   | $\dashv$  | +  | +                  | +            | $\vdash$     | $\dashv$ | $\dashv$ | H             |               |          | $\vdash$        |               | +-  | ╁            | -        | -        | ┰            |           |
| H-              | 14       | -            | $\vdash$        | +        | +       | +                       | +         | +        | $\dashv$  |      |       |          | $\vdash$   | +   | +  | +                  | +-           | +            | -+       |          | ŀ             |               |          | -               |               | +   | +            |          | -+       | $\dashv$     | _         |
|                 | 15       | H            | $\vdash$        | +        | +       | +                       | +-        | +        |           |      |       |          | $\vdash$   | $\dashv$  | -  | +                  | +-           | $\vdash$     | +        |          | :::: <b> </b> |               |          | $\vdash$        | +             | +   | +            | $\vdash$ | +        | +            | $\dashv$  |
|                 | 16       | <del> </del> | $\vdash$        | $\dashv$ | +       | +                       | +         | +        | $\dashv$  |      |       |          | $\vdash$   | $\dashv$  | +  | +                  | +            | $\vdash$     | $\dashv$ |          | 1             |               |          | $\vdash$        | +             | +   | +            |          | +        | +            | $\dashv$  |
|                 | 17       | -            | $\vdash$        | +        | +       | +                       | +         | +        | $\dashv$  |      |       |          | $\vdash$   |   | $\dashv$                                       | +                  | +            | +            | $\dashv$ |          | iiil          |               |          |                 |               | +   | +            | $\vdash$ | +        | +            | $\dashv$  |
|                 | 18       | -            | $\vdash \vdash$ | +        | +       | +                       | +-        | ╀╌┤      | $\dashv$  |      |       |          |  | $\dashv$  | +  | +                  | +            | Н            | $\dashv$ |          | 1             |               |          | $\vdash$        | $\dashv$      | +   | +            | $\vdash$ | +        | +            | $\dashv$  |
|                 | 19       | -            | $\vdash$        | +        | +       | +                       | +         | ╁┼       | $\dashv$  |      |       |          | $\vdash$   | $\dashv$  | +  | +                  | +            | $\vdash$     | $\dashv$ |          | ŀ             |               |          | $\vdash$        | +             | +   | +            | Н        | -        | $\dashv$     | $\dashv$  |
| <b> </b>        | 20       | ÷            |                 | +        | +       | +                       | +         | +-       | $\dashv$  |      |       |          | $\vdash$   | $\dashv$  | +  | ╁                  | +-           | $\vdash$     | $\dashv$ | -        | ŀ             |               |          |                 | -             | +   | +            | $\vdash$ | $\dashv$ | +            | -         |
| <u> </u>        | 21       | -            | $\vdash$        | ╁        | ┿       | ╁                       | +         | ┨        | $\dashv$  |      |       |          | $\vdash$   | -   | +  | ╁                  | ╅            | ╁╾┤          | 一十       | -        | 1             |               |          | $\dashv$        | +             | +   | +            | $\vdash$ | $\dashv$ | +            | ᅱ         |
|                 | 22       | -            | $\vdash$        | +        | +       | +                       | +         | +        | $\dashv$  |      |       |          | <del>                                     </del> | 十   | $\dashv$                                       | +                  | +            | $\vdash$     | $\dashv$ | $\dashv$ | ŀ             |               |          | $\vdash$        | +             | +   | +            | $\vdash$ | $\dashv$ | +            | ᅥ         |
|                 | 23       | -            | $\vdash \vdash$ | +        | +       | +                       | +         | $\vdash$ |           |      |       |          | $\vdash$   | $\dashv$  | $\dashv$                                       | +-                 | +            | Н            | $\dashv$ | $\dashv$ | -             |               |          | $\dashv$        | $\dashv$      | +   | +            |          | +        | +            | $\dashv$  |
|                 | 24       | •            | 1               | +        | +       | +                       | +         | $\vdash$ | -         |      |       |          | $\dashv$   | -   | 十  | +-                 | +            | $\vdash$     | $\dashv$ | $\dashv$ |               | $\overline{}$ |          | $\dashv$        | +             | +   | +-           | $\vdash$ | $\dashv$ | $\dashv$     | ⊣         |
|                 | 25       | -            | $\vdash$        | +        | +       | +                       | ✝         | +        |           |      |       |          | -  | $\dashv$  | $\dashv$                                       | +                  | +            | $\Box$       | $\dashv$ | $\dashv$ | ŀ             |               |          | $\dashv$        | +             | +   | +            | $\Box$   | $\dashv$ | $\dashv$     | ᅱ         |
|                 | 26       | ┢╤           |                 | +-       | +       | +                       | +         |          |           |      |       |          |  | $\dashv$  | $\dashv$                                       | +                  | +-           | +            | _        | $\dashv$ | 1             |               |          | $\dashv$        | $\dashv$      | +   | +            | $\vdash$ | $\dashv$ | $\dashv$     | $\dashv$  |
|                 | 27       | •            |                 | +        | $\top$  | +                       | $\dagger$ | Ħ        |           |      |       |          |  | $\dashv$  | $\dashv$                                       | $\top$             | +            | $\Box$       | $\dashv$ | -        | ı             |               |          | $\dashv$        | $\dashv$      | +   | +            | $\Box$   | $\dashv$ | $\dashv$     | $\dashv$  |
|                 | 28       | -            | $\vdash$        | 十        | $\top$  | $\top$                  | $\dagger$ | $\Box$   | $\neg$    |      |       |          |  | $\dashv$  | $\dashv$                                       | +                  | +-           | $\Box$       | 十        | 7        | ŀ             |               |          |                 | 十             | $\top$  | +-           | П        | $\dashv$ | 十            | ┪         |
|                 | 29       | -            |                 | $\top$   | $\top$  | $\top$                  | +         | Ħ        | $\neg$    |      |       |          |  | $\dashv$  | +  | $\dagger$          | $^{\dagger}$ | t            | T        | 1        | ľ             |               |          |                 |               | $\top$  | 1            | Н        | 十        | $\dashv$     | ᅦ         |
|                 | 30       | -            |                 | $\top$   | T       | $\top$                  | 1         | $\top$   | $\neg$    |      |       |          |  | $\dashv$  | $\top$   | 1                  | T            |              | 十        | $\neg$   | ľ             | $\neg \neg$   |          |                 | $\neg \vdash$ | 1   | $\dagger$    | П        | $\dashv$ | $\dashv$     | $\exists$ |
|                 | 31       | -            |                 | 1        | 1       | 1                       | 1         |          | $\neg$    |      |       | _        | $\Box$   | $\dashv$  | $\top$   |                    | 1            |              | $\dashv$ | $\neg$   |               |               |          |                 | 十             | $\top$  | 1            | П        | $\dashv$ | $\dashv$     |           |
|                 | 32       | -            |                 | T        | T       | 1                       |           | Ħ        | $\exists$ |      |       |          |  | $\neg$  | $\top$   | $\top$             | $\top$       | П            | 寸        | $\neg$   | ı             | $\neg$        |          |                 | $\neg$        | $\top$  | $\top$       | П        | $\dashv$ | $\top$       | ╛         |
|                 | 33       | -            |                 | 7        | 7       | $\top$                  | T         | П        | $\neg$    |      |       |          | $\dashv$   | $\neg$  | 十  |                    | 1            | П            | $\neg$ † | $\neg$   | ı             |               |          |                 | $\top$        | 1   | 1            |          |          | $\top$       |           |
|                 | 34       | -            |                 |          | Т       |                         |           |          |           |      |       |          |  | $\neg$  | $\top$   |                    | 1            | П            | 寸        | $\neg$   | ı             |               |          | $\Box$          | $\neg$        | 1-  | $\top$       | П        | $\neg$   | $\neg$       | ヿ         |
|                 | 35       | •            |                 | I        |         | floor                   | $\Box$    |          |           |      |       |          |  | $\Box$  |  |                    | 1            |              |          |          | iii [         |               |          |                 |               |   | Ι            |          |          |              | $\Box$    |
|                 | 36       | 1            |                 |          | $\perp$ | $oldsymbol{\mathbb{L}}$ |           |          |           |      |       |          |  |   |  |                    |              |              |          |          | Ī             |               |          |                 |               | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$ | $oxed{oxed}$ |          |          |              |           |
|                 | 37       | 1            |                 |          |         |                         |           |          |           |      |       |          |  | $\Box$  | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{I}}}$ |                    | I            |              | $\Box$   |          | Γ             |               |          |                 |               |   |              |          | $\Box$   |              |           |
|                 | 38       | 1            |                 |          |         |                         |           | Ш        | _]        |      |       |          |  | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$ | $oxed{\Box}$                                   | $oldsymbol{\perp}$ |              |              | $\Box$   |          |               |               |          |                 |               | $\perp$   |              |          | $\Box$   |              |           |
|                 | 39       | 1            |                 | Ļ        | Ļ       | $\perp$                 | $\perp$   | Ш        | ]         |      | ]     | ]        | $\perp$  |   | [_   |                    |              | Ш            |          |          | [             |               |          |                 |               | $\perp$   |              |          | $\bot$   |              |           |
| $\perp$         | 40       | 1            |                 | 1        | 1       | $\perp$                 |           | Ш        |           |      |       |          | _ [  |   |  | $\perp$            |              | Ш            |          | _        |               | [             |          |                 |               |   | 1            | Ш        |          | _ _          |           |
| لـنــا          | 41       | <b>√</b>     | $\perp$         | 4        | _       | $\perp$                 | 1_        | $\sqcup$ |           |      |       |          | _  | _   | 4  | $\perp$            | $\perp$      | Ш            | $\perp$  | _        |               |               |          | $\Box$          | $\perp$       | $\perp$   | $\perp$      | Ш        | $\perp$  | $\perp$      |           |
| <b>  </b>       | 42       | 1            | $\bot$          | _        | $\bot$  | $\perp$                 | $\perp$   | $\sqcup$ |           |      |       |          |  | _   | $\bot$   |                    | ↓_           | $\sqcup$     | _        |          |               |               |          |                 |               | _   | 1            | Ш        |          | $\perp$      |           |
| <b>  </b>       |          |              |                 | $\bot$   | 4       | ┷                       | ╁         | $\sqcup$ |           |      |       |          |  | _   | 4  | $\perp$            | 4            | Щ            | $\dashv$ | _        | L             |               |          | _               |               | _   | ╄-           | Ш        |          | _            |           |
| <u> </u>        |          |              |                 | $\bot$   | $\bot$  | 4                       | 1         | $\sqcup$ | _         |      |       |          |  | 4   | _ _  | 4                  | 4            | Щ            | _        | _        |               |               |          | _               |               | 4   | ╀-           | Щ        |          | $\perp$      | _         |
| $\square$       |          |              | $\perp$         | $\bot$   | $\bot$  | +                       | ╀-        | $\sqcup$ | _         |      |       |          |  | 4   | 4  | $\bot$             | 4_           | <del> </del> | _        | [        |               |               |          | _               |               | 4   | $\perp$      | $\sqcup$ |          | 4            | _         |
| $\vdash \vdash$ |          |              | $\dashv$        | +        | $\perp$ | $\bot$                  | 1         | $\sqcup$ |           |      |       |          |  | _   | $\dashv$                                       | $\perp$            | +-           | $\sqcup$     | _        | _        | -             |               |          | _               |               | +   | ┼-           | $\sqcup$ | $\perp$  | _            | _         |
| $\vdash \vdash$ |          |              | $\perp$         | +        | +       | +                       | ╂         | $\sqcup$ | _         |      |       |          | _  | -   | 4  | +                  | ┼            | $\sqcup$     |          | _ :      | -             |               |          | -+              |               | +   | 4-           | $\sqcup$ | 4        | 4            | 4         |
| $\vdash \vdash$ |          |              |                 | +-       | +       | +                       | +-        | $\sqcup$ |           |      | ļ     |          | _  | _   | _  | +                  | +            | $\vdash$     | $\perp$  | _        | -             |               |          | _               | _ _           | +   | ــــ         | Щ        |          | $\perp$      | 4         |
| $\vdash$        |          | Щ            |                 | +        | +       | $\bot$                  | +         | $\sqcup$ |           |      | _     |          | _  | 4   | +  | +                  | +            | $\sqcup$     |          | _        |               |               |          | _               | _ _           | +   | _            | $\sqcup$ | -        | 4            | ᅬ         |
| $\sqcup \sqcup$ |          |              | L_              | L        | 1       | ┸                       |           | $\perp$  |           | [    |       |          |  |   |  |                    |              | Li           |          | :        | :::[L         |               |          |                 |               |   |              |          |          |              | - 1       |